Why are we applying the WHO value as an acute health advisory?

While Ohio EPA used the WHO number in establishing our public notice advisory threshold, we also considered additional factors

- There have been additional studies beyond those used by the WHO including work by USEPA that indicated a lower reference dose may be warranted. Some of the newer data address impacts that were not considered in the WHO assessment, and some of these impacts may be more sensitive than those addressed by WHO.

- The WHO advisory value did not explicitly consider risk to sensitive subpopulations including children and bottle-fed infants or individuals with pre-existing liver damage.

As a regulator I am left to use the best science available to judge risk and develop protective policies. By using the WHO study and other emerging science available today, I believe Ohio has set a standard that is conservative, safe, responsible and protective.

What lessons learned/do we have on the analytical protocol?

Early in the crisis that occurred in Toledo, there were some questions raised on conflicting sample results. Specifically, why analytical results of finished water samples that were lysed (microcystin broken open to release toxins), showed lower results than those samples that were not lysed? This result is counter intuitive since if there were any organisms present in the water to be lysed, you would anticipate higher toxin levels. Early in the crisis some questioned if chlorine interference was causing higher values – false positives. Analytical work completed in conjunction with USEPA comparing lysed and un-lysed samples revealed that the critical factor is whether the finished water samples are immediately quenched to inactivate the chorine residual in the sample. Chlorine will degrade the microcystin and lower results over time. Additional work with the manufacturer of the testing equipment and other laboratories since that time has confirmed chlorine does not cause interferences (false positive in the analyses).

Ohio EPA, in consultation with the same team of experts, has revised and recently issued a draft final SOP for comments based on additional lessons learned this summer.

How would states want to engage with U.S. EPA in developing an advisory number and analytical method?

It is our understanding EPA is anticipated to have a reference dose number yet this year. The challenge is then to translate the Rfd to an actual number. There are a number of assumptions and uncertainty factors will be used in establishing an advisory level as well as policy considerations (e.g. tiered standard for sensitive populations verses healthy adult, acute verses multi-day exposure, single congener or consideration of equivalent cyanotoxins in water). States need to be engaged in those deliberations before the advisory number is finalized.

We believe more work is needed to evaluate the capabilities and applicability of analytical methods. Each method has its benefits and limitations. We are concerned that EPA is narrowly focused on evaluating one very expensive analytical method for only one congener of one toxin. Ohio plans to work with a commercial lab and other researchers to better to do some limited comparative studies. We will keep EPA informed as that work continues and welcome their participation.

Do we support microcystin being added to the UCMR (unregulated contaminant monitoring rule)?

Yes, we support microcystin and other cyanotoxins being added to the UCMR4.

We are concerned about focusing solely on microcystin LR when there are many more known cyanotoxins believed to also have significant health implications.

We would like to see addition analytical methods evaluated for that rule other than just LC/MS/MS.

If U.S. EPA doesn't issue an MCL, how comfortable are we about implementing their health advisory recommendations?

We understand and support the rigorous process needed to develop an MCL, but we also have an immediate need for a consistent national approach based on the best currently available science. We hope EPA moves expeditiously in working with states to finalize health advisory levels.

We anticipate, unless EPA issues something completely unexpected, that we will incorporate the advisory levels issued by USEPA into our State HAB strategy. Again, it is important that we understand all of the assumptions and uncertainty factors built into the numbers.

Are we making any changes on nutrient management?

Yes, I believe the best long term approach is protecting the source of our drinking waters and prevent blooms by bringing these ecosystems back into balance via data-driven, targeted strategies to address nutrient pollution. Ohio with support of funds provided through the Great Lakes Restoration Initiative, has developed a coordinated strategy with the Departments of Agriculture, Natural Resources, EPA and health to develop prescriptions for the watersheds in the Lake Erie basin to address nutrient pollution.

Do we want to see any changes made to the Safe Drinking Water Act?

We think it would be beneficial to change SDWA Section 1452(k)(1)(C) to allow states to again take set-asides from the SRF capitalization grants to fund source water assessments. Most assessments were completed nearly 15 years ago.

Do we need more money to help communities upgrade drinking water/wastewater treatment plant?

The answer to this question is best exemplified by the demand we had for the significant amount of funds we made available this fall for infrastructure improvements. In a matter of weeks we had request to fund projects in excess of the $150 million we were offering. Yes, we need more money for infrastructure improvements.

We would also like to see more funding available for source water assessment and protection activities as provided through SRF capitalization grant set-asides.

One possibility would be to modify SDWA Section 1452(k)(1)(C) to allow states to use this set-aside again for source water assessments. This set-aside was made available only for the 1996 and 1997 capitalization grants. Assessments completed using those funds are getting old.